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Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

jc542 U.S. PTO
09/459452
12/13/99

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Timo Tokkonen of Oulu, Finland

WARNING: Patent must be applied for in the name(s) of all of the actual inventor(s). 37 CFR 1.41(a) and 1.53(b).

For (title): REMINDER FUNCTION FOR MOBILE COMMUNICATION
DEVICE

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date, December 13, 1999, in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EJ572070340US, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Veronica E. Cameau
(type or print name of person mailing paper)

Veronica E. Cameau
Signature of person mailing paper

NOTE: Each paper or fee referred to as enclosed herein has the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 CFR 1.10(b).

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 CFR 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

1. Type of Application

This new application is for a(n)
(check one applicable item below)

☒ Original (nonprovisional)

☐ Design
☐ Plant

WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.

WARNING: Do not use this transmittal for the filing of a provisional application.

NOTE: If one of the following 3 items apply, then complete and attach **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED** and a **NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION**.

- ☐ Divisional.
☐ Continuation.
☐ Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35. U.S.C. 119(e), 120, or 121)

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). [35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).] For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

WARNING: When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).

- ☐ The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**.

3. Papers Enclosed That Are Required for Filing Date under 37 C.F.R. 1.53(b) (Regular) or 37 C.F.R. 1.153 (Design) Application

 8 Pages of specification

 4 Pages of claims

 1 Page of Abstract

 3 Sheets of drawing

- ☐ formal
☒ informal

WARNING: *DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. Comments on proposed new 37 CFR 1.84. Notice of March 9, 1988 (1990 O.G. 57-62).*

NOTE *"Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c).*

(complete the following, if applicable)

- ☐ The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

4. Additional papers enclosed

- ☐ Preliminary Amendment
- ☐ Information Disclosure Statement (37 C.F.R. 1.98)
- ☐ Form PTO-1449
- ☐ Citations
- ☐ Declaration of Biological Deposit
- ☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
- ☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative
- ☐ Special Comments
- ☐ Other

5. Declaration or oath

- ☐ Enclosed
Executed by

(check all applicable boxes)

- ☐ inventor(s).
- ☐ legal representative of inventor(s). 37 CFR 1.42 or 1.43.
- ☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
- ☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.

- ☒ Not Enclosed.

WARNING: Where the filing is a completion in the U.S. of an International Application, but where a declaration is not available, or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.

- ☐ Application is made by a person authorized under 37 CFR 1.41(c) on behalf of **all** the above named inventor(s).

[The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently.]

NOTE: It is important that all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).

- ☐ Showing that the filing is authorized.
[not required unless called in question. 37 CFR 1.41(d)]

6. Inventorship Statement

WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.

The inventorship for all the claims in this application are:

- ☒ The same.

or

- ☐ Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
☐ is submitted.
☐ will be submitted.

7. Language

NOTE: An application including a signed oath or declaration may be filed in a language other than English. A verified English translation of the non-English language application and the processing fee of \$130.00 required by 37 CFR 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 CFR 1.52(d).

NOTE: A non-English oath or declaration in the form provided or approved by the PTO need not be translated. 37 CFR 1.69(b).

- ☒ English
☐ Non-English
☐ The attached translation is a verified translation. 37 CFR 1.52(d).

8. Assignment

- ☒ An assignment of the invention to Nokia Mobile Phones Limited
☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.
☒ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters—one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).

WARNING: A newly executed "CERTIFICATE UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

9. Certified Copy

Certified copy(ies) of application(s)

Country	Appln. no.	Filed
Country	Appln. no.	Filed
Country	Appln. no.	Filed

from which priority is claimed

- ☐ is (are) attached.
☐ will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. 1.16)

- A. ☒ Regular application

CLAIMS AS FILED			
Number Filed	Number Extra	Rate	Basic Fee
			37 C.F.R. 1.16(a)
			\$760.00
Total Claims [37 CFR 1.16(c)] 26-20 = 6	6	x \$18.00	108.00
Independent Claims [37 CFR 1.16(b)] 2-3 = 0	0	x \$78.00	0
Multiple dependent claim(s), if any [37 CFR 1.16(d)]	0	+ \$260.00	0

- ☐ Amendment cancelling extra claims is enclosed.
☐ Amendment deleting multiple-dependencies is enclosed.
☐ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation

\$868.00

- B. ☐ Design application
[\$310.00—37 CFR 1.16(f)]

Filing Fee Calculation \$

- C. ☐ Plant application
[\$480.00—37 CFR 1.16(g)]

Filing Fee Calculation \$

11. Small Entity Statement(s)

- ☐ Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is (are) attached.

WARNING: *Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. A nonprovisional application claiming benefit under 35 U.S.C. 119(e), 120, 121 or 365(c) of a prior application may rely on a verified statement filed in the prior application if the nonprovisional application includes a reference to a verified statement in the prior application or includes a copy of the verified statement filed in the prior application if status as a small entity is still proper and desired " 37 C.F.R. § 1.28(a).

(complete the following, if applicable)

- ☐ Status as a small entity was claimed in prior application.
_____/_____, was filed on _____, from which
benefit is being claimed for this application under:

35 U.S.C. ☐ 119(e),

☐ 120,

☐ 121,

☐ 365(c),

and which status as a small entity is still proper and desired.

- ☐ A copy of the verified statement in the prior application is included.

Filing Fee Calculation (50% of A, B or C above)

\$ _____

NOTE: Any excess of the full fee paid will be refunded if a verified statement and a refund request are filed within 2 months of the date of timely payment of a full fee. The two-month period is not extendible under § 1.136, 37 CFR 1.28(a).

12. Request for International-Type Search [37 C.F.R. 1.104(d)]

(complete, if applicable)

- ☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee Payment Being Made at This Time

☐ Not Enclosed

☐ No filing fee is to be paid at this time.
(This and the surcharge required by 37 C.F.R. 1.16(e) can be paid subsequently).

☒ Enclosed

☒ Filing fee \$868.00

☐ Recording assignment
[\$40.00; 37 C.F.R. 1.21(h)]
(See attached "COVER SHEET FOR ASSIGNMENT
ACCOMPANYING NEW APPLICATION"). _____

☐ Petition fee for filing by other than all the inventors or
person on behalf of the inventor where inventor refused
to sign or cannot be reached
[\$130.00; 37 C.F.R. 1.47 and 1.17(h)] _____

☐ For processing an application with a specification
in a non-English language
[\$130.00; 37 C.F.R. 1.52(d) and 1.17(k)] _____

☐ Processing and retention fee
[\$130.00; 37 C.F.R. 1.53(d) and 1.21(l)] _____

☐ Fee for international-type search report
[\$40.00; 37 C.F.R. 1.21(e)] _____

NOTE: 37 CFR 1.21(l) establishes a fee for processing and retaining any application that is abandoned for failing to complete the application pursuant to 37 CFR 1.53(d) and this, as well as the changes to 37 CFR 1.53 and 1.78, indicates that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid, or the processing and retention fee of § 1.21(l) must be paid, within 1 year from notification under § 53(d).

Total fees enclosed \$868.00

14. Method of Payment of Fees

☐ Check in the amount of \$ _____

☒ Charge Account No. 50-0270 in the amount of \$868.00

Two duplicates of this transmittal are attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- ☒ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 50-0270.

☒ 37 C.F.R. 1.16(a), (f) or (g) (filing fees)

☒ 37 C.F.R. 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: *Because additional fee for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency [37 CFR 1.16(d)], it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.*

☒ 37 C.F.R. 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

☒ 37 C.F.R. 1.17 (application processing fees)

WARNING: While 37 CFR 1.17(a), (b), (c) and (d) deal with extensions of time under § 1.136(a), this authorization should be made only with the knowledge that "Submission of the appropriate extension fee under 37 C.F.R. 1.136(a) is to no avail unless a request or petition for extension is filed." (Emphasis added). Notice of November 5, 1985 (1060 O.G. 27).

☐ 37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b))

NOTE: *Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).*

NOTE: *37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application...prior to paying, or at the time of paying,...issue fee." From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.*

16. Instructions as to Overpayment

☒ Credit Account No. 50-0270.

☐ Refund

Reg. No. 41,270

Tel. No. (972) 894-4959



Signature of Attorney

Brian T. Rivers

(type or print name of attorney)

Nokia Inc.

6000 Connection Drive

(P.O. Address)

Irving, TX 75039

☐ **Incorporation by reference of added pages**

[check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an International Application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.]

- ☐ Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

Number of pages added _____

- ☐ Plus Added Pages for Paper Referred to in Item 4 Above

Number of pages added _____

- ☐ Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added _____

☐ **Statement Where No Further Pages Added**

(if no further pages form a part of this Transmittal, then end this transmittal with this page and check the following item)

- ☒ This transmittal ends with this page.

Patent Application Papers of: Timo Tokkonen

Attorney Docket No. NC24603

REMINDER FUNCTION FOR MOBILE COMMUNICATION DEVICE

FIELD OF THE INVENTION:

This invention relates to mobile communication devices and, more particularly, to a communication device having a reminder function, wherein
5 the reminder function may be associated with external triggering events and triggered actions of the communication device.

BACKGROUND

As advances in technology allow portable communication devices to decrease in size while at the same time to become more sophisticated in
10 function, communication devices are becoming more and more an integral part of daily life.

A large variety of portable communication devices currently exists, each having a different degree of sophistication as far as the features offered. Mobile telephones are the most common and continue to grow in
15 sophistication. Another common device is a Personal Digital Assistant (PDA). PDAs allow users to store and manipulate data and information useful in their work and daily lives. PDAs may be configured to download and store programs and information from a computer. Some PDAs offer reminder or scheduling functions that allow a user to input information or appointments
20 and set a reminder function for a specific time that is triggered by a timer within the device to remind the user of an appointment or to do a task connected with the input information. The reminder function may trigger an alarm or display function to remind the user of something that has to be done. PDAs have been developed that have the capability to send and receive email
25 through wireless interfaces. PDAs have also been developed that include mobile telephone functionality.

Communicator-type devices that combine mobile telephone functions and PDA-type features in one portable unit have also been developed. As

these communicator-type devices grow in sophistication and decrease in size, the functions and features offered will increase in number.

The examples given above of the mobile telephone, communicator and the PDA are only three of many portable communication devices currently available or under development. Technology is moving in the direction of integration of all the functions of the different types of portable devices available today into one universal device. As this integration happens, it would be useful to provide enhanced functions that take advantage of the various features that are combined together in portable communication devices as these portable communication devices evolve.

SUMMARY OF THE INVENTION

The present invention provides a mobile communication device having a reminder function that may be associated functionally with triggering events and triggered actions associated with the mobile communication device. The invention allows a user of a mobile communication device to configure a desired reminder and associate the configured reminder with a triggering event initiated externally to the communication device. Upon the occurrence of the triggering event, a defined action associated with the reminder occurs. The invention allows the user of a mobile communication device to connect a reminder, triggering event and a defined action together to realize an efficient reminder function that is based on an event or events when the occurrence of the event or events may happen arbitrarily.

In an embodiment of the invention, the reminder function of the invention is implemented in a mobile telephone. The mobile telephone has a reminder storage function, wherein each reminder stored may be associated with an external triggering event. The association between the stored reminder and triggering event may be stored in memory. An action may also be defined as associated with the reminder and triggering event, and the association between the defined action and reminder and triggering event

may be stored in memory. Upon the occurrence of the triggering event, the defined action associated with the reminder that is associated with the triggering event is initiated. The reminder may comprise stored text, picture, audio, or another form of stored information. The triggering event may be a
5 phone call outgoing from the mobile phone, or a received phone call. The defined action may be an action to be performed, such as displaying or playing of the reminder at the mobile station, transmitting a short message service (SMS) message including the reminder, or other form of communication for conveying the reminder. The defined action is performed
10 upon detection of the triggering event in the mobile telephone.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a mobile phone into which an embodiment of the invention is implemented;

FIG. 2 is a flow diagram showing process steps performed in the
15 mobile phone of FIG. 1, according to an embodiment of the invention; and

FIG. 3 is an illustration of a mobile telephone display showing user prompts according to an embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to FIG. 1, therein is illustrated a block diagram of a
20 mobile phone into which an embodiment of the invention is implemented. Mobile telephone 1 comprises transmitter 10, receiver 11, antenna 19, memory 12, processor 13, ringer 17, keypad 15, recorder 20, speaker 18, microphone 21 and display 16. Mobile telephone 1 operates as a mobile telephone having additional functions including a reminder function according
25 to an embodiment of the invention. Memory 12 represents a collective memory for mobile telephone 1 and may include RAM, ROM, Subscriber Identity Module (SIM) memory, and memory internal to processor 13. Memory 12 includes a code that controls the operation of processor 13 to implement functions according to the embodiment of the invention. Processor

13 generates appropriate commands and controls the other component blocks of mobile telephone 1 to provide conventional functions of a mobile telephone and also allow operation according to the embodiment of the invention.

Referring now to FIG. 2, therein is a flow diagram showing process steps performed within mobile telephone 1 of FIG. 1, according to an embodiment of the invention. In the embodiment of the invention, the steps of FIG. 2 are performed by processor 13 under control of programs stored in memory 12 and in response to user input from keypad 15 or speaker 18, and external events. FIGs. 3A-3G illustrate an example of a possible sequence of prompts at display 16 for implementing the text reminder function for the process of FIG. 2 through an exemplary sequence of steps.

The process of FIG. 2. allows a user of mobile telephone 1 to create a reminder, select a triggering event associated with the reminder, and select an action that is to be performed with or using the reminder upon occurrence and detection of the triggering event. The process of FIG. 2 may also be used to configure the reminder function to create any combination and number of associated multiple reminders, triggering events or actions according to the embodiment of the invention. Multiple reminders may be selected and linked to multiple triggering events and multiple actions. For example, a reminder text note may be created that is to be sent by SMS to each of a number of multiple receivers upon a phone call being made to or received from a particular destination. This may remind each of the receiving parties that a phone conference is being set up. Instead of creating and sending a reminder text, an audio reminder could be recorded and a phone call to each receiving party to play an audio reminder could also be performed as an action.

The process begins at step 200 when a user of mobile telephone 1 initiates the reminder function. In the embodiment, this may be done by selecting a menu function using display 16 and keypad 15. Next, at step 202, mobile telephone 1 prompts the user for input selecting and creating or editing the type of reminder the user desires. FIG 3A illustrates display 16 at the

beginning of step 202. A reminder that is initially created may be edited by selecting an edit function after choosing the type of reminder. In the embodiment of FIG. 2, the process may allow the user to choose to edit an existing reminder, or create a text reminder or record an audio reminder as shown in FIG 3A. FIG. 3B and FIG. 3C illustrate the display prompts for creating a text reminder. The text reminder is entered through keypad 15 as the input device in response to the prompt of FIG. 3B and stored in memory 12 for displaying on display 16. Upon entering and saving the text reminder, the user is prompted to continue or add another reminder as shown in FIG. 3C. Multiple reminders may be entered and associated with one another in this manner. If selected, an audio reminder may similarly be entered through microphone 21 or the input device and stored in memory 12 for playback by digital recorder 20. When the user enters continue in response to the prompt at FIG. 3C, the process moves to step 204. At step 204, the user is prompted by mobile telephone 1 to enter a triggering event. The triggering event definition may be entered in the same manner as the reminder is entered. FIGs. 3D and 3E illustrate prompts for selecting and defining a triggering event. In response to the prompt of FIG. 3D, the user may select a triggering event. The triggering event may be any event related to a function of mobile telephone 1, such as receiving a phone call or initiating an outgoing call from mobile telephone 1. Depending on the selected triggering event, processor 13 will create subsequent prompts at display 16 to ask for further input. For example, as illustrated in FIG. 3E, if an outgoing phone call is selected as the triggering event, processor 13 will initiate a further prompt to ask for a particular number or numbers, so that an outgoing phone call to the selected number(s) becomes the triggering event. The prompt shown in FIG. 3E also gives the user the option of pressing 1 after entering the number to add another triggering event, i.e., to associate more than one triggering event with the reminder(s) entered in step 202. A larger number of events then shown may be offered in the display prompt of FIG. 3D by allowing scrolling through a list of events. If the user presses save after entering a number in response

to the prompt of FIG. 3E, the process moves to step 206. The triggering event(s) defined at step 204 is stored in memory 12 by processor 13 and is linked to the reminder that was created and stored at step 202. As an alternative, a triggering event profile could also be entered, where the profile defines a hierarchy or sequence of triggering events that must happen in order to trigger an action.

In other alternative embodiments, devices for detecting triggering events external to mobile telephone 1 may be implemented into mobile telephone 1 to provide a signal to processor 13 upon occurrence of a selected external event. The external event may then be used as the triggering event. Such external triggering events may include location or movement in, or into, a selected area. The location or movement may be detected by a video device, GPS device, or by the presence of certain bluetooth devices or a thermometer that generates a signal to processor 13 or that is monitored by processor 13 to detect the triggering event.

Next, at step 206, the user is prompted to define an action. FIGs. 3F and 3G illustrate the prompt for defining an action. The action may be defined and entered into mobile telephone 1 in a similar manner as the reminder and triggering events are entered. The action may be entered in response to the prompt of FIG. 3F. The action may be an action, such as displaying a textual reminder entered in step 202, sending a short message service (SMS) message including a text reminder entered in step 202 to a selected number, playing an audio reminder recording entered in step 202, or making a phone call and playing an audio reminder entered in step 202. The action may include a combination of a number of more than one of these actions. For example, a combination of actions may include displaying a textual note and playing an audio recording or displaying a textual note and sending an SMS. A larger number of actions then shown may be offered in the display prompt of FIG. 3F by allowing scrolling through a list of actions. After entering the action, the user may be given a chance to add additional actions or continue

as shown by the prompt of FIG. 3G. When the desired action or actions have been entered, the user is allowed to review the reminder, triggering event and action entries or exit, in response to the prompt of FIG. 3H. The defined action entered at step 206 is stored in memory 12 by processor 13 and is
5 linked to the triggering event that was entered and stored at step 204.

Next, at step 208, the process moves to a wait state. While in the wait state of step 208, processor 13 waits for process input. In the embodiment, a process input may be a detection of a triggering event or a detection of an input indicating that the user desires to edit or change the reminder, triggering
10 event or defined actions entered in steps 202-206. If it is determined at step 212 that the process input is not a triggering event, the process moves to step 202. At step 202, the user is prompted to begin editing the reminder by the prompt shown in FIG. 3A. In response to the edit input, the display may allow scrolling through a list of stored reminders to choose one to edit. The user
15 may also redefine the triggering event and actions again at steps 204 and 206, respectively, as described previously. The wait state of step 208 will then be re-entered after the desired edits are made and edited.

If, however, at step 212, it is determined that the process input is a triggering event, the process moves to step 214. At step 214, the action is
20 performed. The process then returns to the wait state of step 208.

While the embodiment of the invention has been described in connection with mobile telephones, embodiments of the invention have application to any type of mobile communication device. For example, text or audio reminders could be created in a PDA having wireless email receiving
25 capabilities and a triggering event, such as sending or receiving an email to or from a particular email address, could trigger the performance of an action with the reminder. The action could be, for example, a text or audio reminder reminding the PDA user of something the user should tell the email receiver or sender the next time the user has an opportunity to do so. Also, the invention
30 may be implemented with one or more of the reminders, triggering events or

defined actions stored externally to the mobile within the system, or with different combinations of the functionality of the reminder(s), triggering events or defined actions performed elsewhere in the system than at the mobile station.

- 5 Thus, while the invention has been particularly shown and described with respect to preferred embodiments thereof, it will be understood by those skilled in the art that changes in form and details may be made therein without departing from the scope and spirit of the invention.

What is claimed is:

- 1 1. A method for generating a reminder in a communication device
2 operating in a system, said method comprising the steps of:

3 generating a reminder from user input and storing said reminder in the
4 system;

5 defining a triggering event and storing an indication of said triggering
6 event in the system, wherein said triggering event is an event initiated
7 external to the communication device;

8 defining an action and storing an indication of said action in the system;
9 detecting an occurrence of said triggering event; and
10 performing, in response to detecting said triggering event, said action
11 at the communication device.
- 1 2. The method of claim 1, wherein said step of generating a
2 reminder comprises generating a text reminder.
- 1 3. The method of claim 2, wherein said step of generating a text
2 reminder comprises receiving keypad input at the communication device.
- 1 4. The method of claim 1, wherein said step of generating a
2 reminder comprises generating an audio reminder.
- 1 5. The method of claim 4, wherein said step of generating an audio
2 reminder comprises recording voice input at the communication device.
- 1 6. The method of claim 1, wherein said step of generating a
2 reminder comprises generating a video reminder.
- 1 7. The method of claim 6, wherein said step of generating a video
2 reminder comprises recording video input at the communication device.

1 8. The method of claim 1, wherein said step of defining a triggering
2 event comprises the step of defining said triggering event as an incoming
3 phone call from a selected phone number to the communication device.

1 9. The method of claim 1, wherein said step of defining a triggering
2 event comprises the step of defining said triggering event as an outgoing
3 phone call to a selected phone number from the communication device.

1 10. The method of claim 1, wherein said step of defining a triggering
2 event comprises the step of defining said triggering event as an external event
3 determinable by a sensor in the communication device.

1 11. The method of claim 1, wherein said step of generating a
2 reminder comprises generating a text reminder, and wherein said step of
3 defining an action comprises defining said action as displaying said text
4 reminder.

1 12. The method of claim 2, wherein said step of generating a
2 reminder comprises generating an audio reminder, and wherein said step of
3 defining an action comprises defining said action as playing said audio
4 reminder.

1 13. The method of claim 1, wherein said reminder, said indication of
2 said triggering event and said indication of said action are stored in the
3 communication device.

1 14. An apparatus for generating a reminder in a communication
2 device or operating in a system, said apparatus comprising:

3 an input device for receiving input in the communication device, said
4 input generating a reminder, defining a triggering event to be initiated
5 external to the communication device, and defining an action, wherein
6 said action is to be performed using said reminder upon occurrence of
7 said triggering event;

8 at least one memory, said memory for storing said reminder, an
9 indication of said triggering event, and an indication of said action in
10 the system; and

11 a processor in the communication device, coupled to said input device
12 and operable to communicate with said at least one memory, said
13 processor for detecting occurrence of said triggering event and
14 initiating performance of said action on said reminder in the
15 communication device.

1 15. The apparatus for claim 14, wherein said reminder comprises a
2 text reminder.

1 16. The apparatus of claim 15, wherein said input device receives
2 keypad input to generate said text reminder.

1 17. The apparatus of claim 14, wherein said reminder comprises an
2 audio reminder.

1 18. The apparatus of claim 15, wherein said input device records
2 audio input to generate said audio reminder.

1 19. The apparatus of claim 14, wherein said reminder comprises a
2 video reminder.

1 20. The apparatus of claim 19 wherein said input device records
2 video input to generate said video reminder.

1 21. The apparatus of claim 14, wherein said triggering event
2 comprises an incoming phone call from a selected phone number to the
3 communication device.

1 22. The apparatus of claim 14, wherein said triggering event
2 comprises an outgoing phone call to a selected phone number from the
3 communication device.

1 23. The apparatus of claim 14, wherein said triggering event
2 comprises an external event determinable by a sensor in the communication
3 device.

1 24. The apparatus of claim 14, wherein said reminder comprises a
2 text reminder and said action comprises displaying said text reminder.

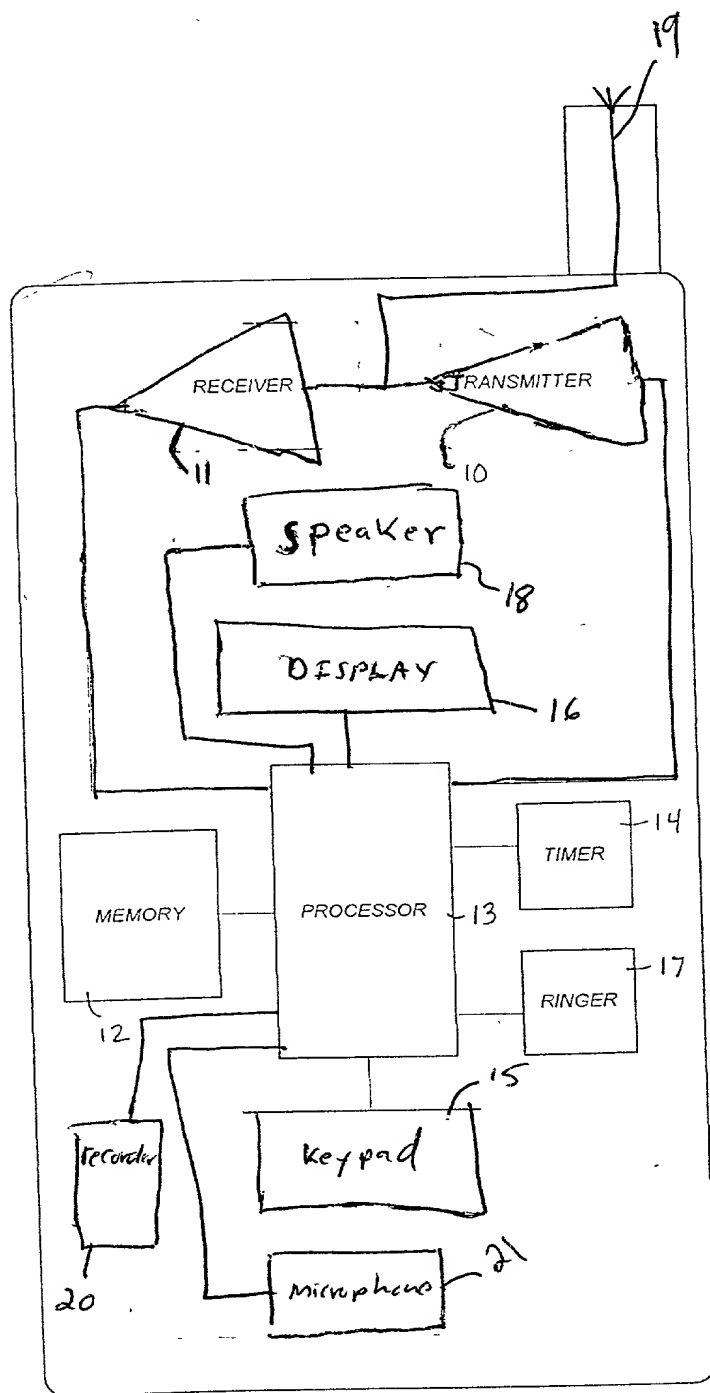
1 25. The apparatus of claim 14, wherein said reminder comprises an
2 audio reminder and said action comprises playing said audio reminder.

1 26. The apparatus of claim 14, wherein said memory is
2 implemented in the mobile communication device.

ABSTRACT OF THE INVENTION

A mobile communication device having a reminder function that may be associated functionally with triggering events and triggered actions associated with the mobile communication device. The invention allows a user of a mobile communication device to configure a desired reminder and associate the configured reminder with a triggering event. Upon the occurrence of the triggering event, a defined action associated with the reminder occurs. The invention allows the user of a mobile communication device to connect a reminder, triggering event and a defined action together to realize an efficient reminder function that is based on an event or events when the occurrence of the event or events may happen arbitrarily.

Figure 1



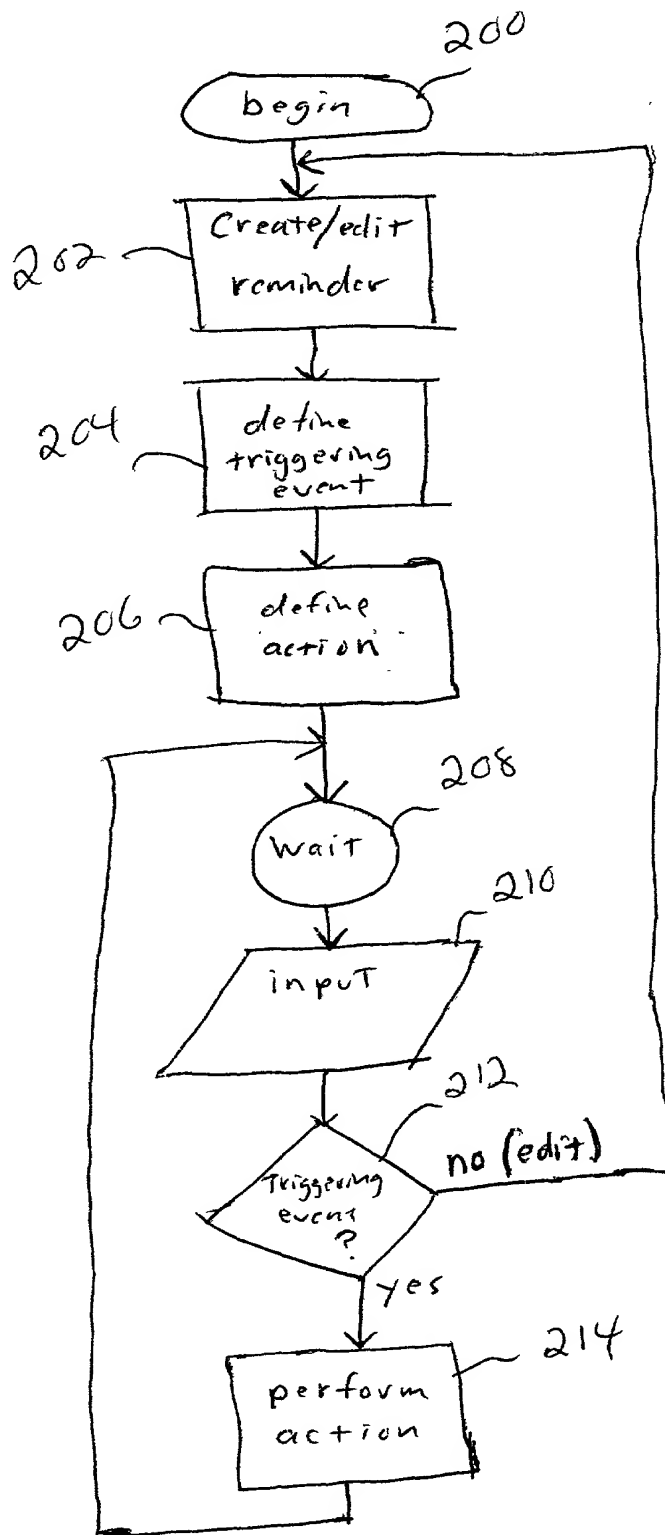


FIG. 2

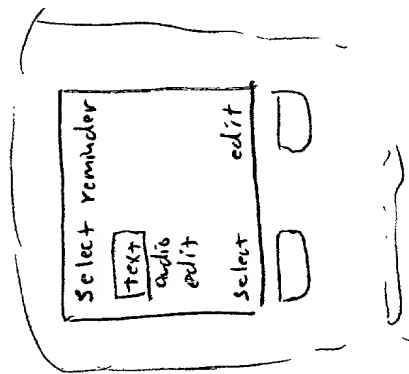


FIG. 3A

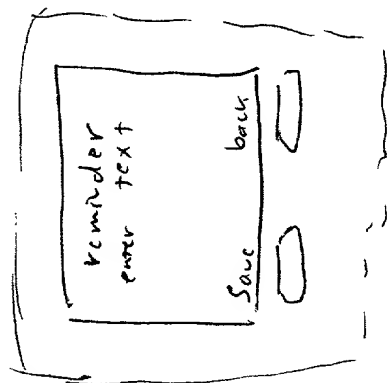


FIG. 3B

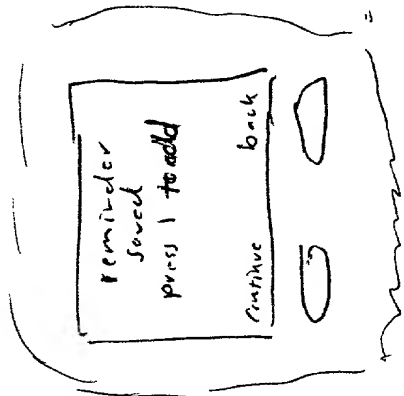


FIG. 3C

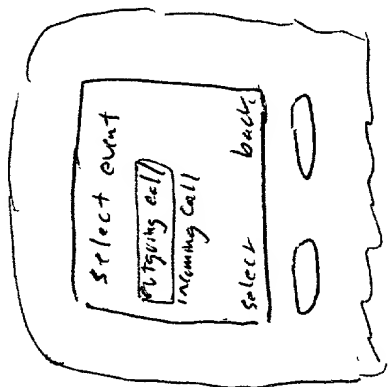


FIG. 3D



FIG. 3E



FIG. 3F

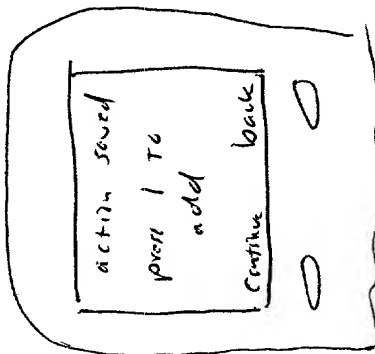


FIG. 3G

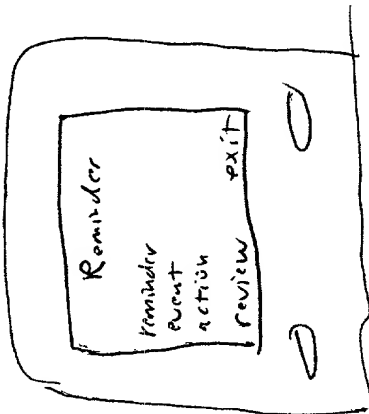


FIG. 3H